

Bloodborne Pathogen Exposure Plan Checklist

Section I: General Laboratory Information

1. Name of Principle Investigator(s) or Supervisor(s): Dr. David Schauer, D.V.M., Ph.D.

2. PI signature:



Date: Nov 1, 2006

3. Department/Lab/Center: Biological Engineering

4. Office Number and Phone Number: 56-787B, x3-8113

5. Laboratory Room Numbers where human materials are used and/or stored: 56-773, 56-786, 56-765 (stored)

6. Please list COUHES Approval #: EXEMPTION# 0411000971

7. Accepted for the EHS Office's Biosafety Program:

Date:

Section II: Brief Description of the Project(s)

The projects will consist of mainly the maintenance and culture of human cell lines as recommended by ATCC. Also, cells will be treated with whole bacteria and bacterial extracts to determine the effects on the cell line of interest. At the conclusion of the treatment, cells will be lysed for isolation of DNA, RNA, and/or protein. If not lysed, cells will either be killed with 10% bleach for 20 minutes or fixed and stained for microscopy.

Section III: Occupational Exposure

1. Infectious Materials Used in This Laboratory (*check all that apply*)



a. Established human cell lines (list cell name and/or tissue type) Is this from a cell line repository, commercial source or another investigator?

Use various human-derived cell lines (listed below and obtained from ATCC) in bioassays.

	<u>Catalog No.</u>	<u>Description</u>
	CCL-2	HeLa (epitheloid carcinoma, cervix)
	CCL-23	Hep-2 (epidermoid carcinoma, larynx)
	CCL-248	T84 (epithelial colonic carcinoma; lung metastasis)
	CRL-1573	293 (adenovirus-transformed kidney epithelial)
	CRL-1739	AGS (gastric adenocarcinoma, stomach)
	CRL-10741	C3A or HepG2/C3A (hepatoblastoma)
	HTB-37	Caco-2 (Adenocarcinoma, colon)
	CRL-8015	TK-6 (lymphoblast, thymidine kinase heterozygote)
	TIB-202	THP-1 (acute monocytic leukemia, monocyte)
	HTB-38	HT-29 (colorectal adenocarcinoma, colon)

	The following 3 cell lines were derived from the CRL-8015, in Prof. William Thilly's lab, MIT.	
	WTK-1	lymphoblast, thymidine kinase heterozygote
	TK6-E6-E5 (control)	lymphoblast thymidine kinase heterozygote
	TK6-E6-E5 (vector)	lymphoblast thymidine kinase heterozygote with vector producing p53.
<input type="checkbox"/>	b. Human blood, serum, plasma, blood products, components, or primary cell cultures or primary cell lines. (List cell name and/or tissue type) Was the specimen tested for any viral agents? If so, what?	
<input type="checkbox"/>	c. Human body fluids: cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, semen, vaginal secretions, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and body fluids in situations where it is difficult or impossible to differentiate between body fluids. (list body fluid type and source)	
<input type="checkbox"/>	d. Unfixed human tissue or organ (other than intact skin). (list tissue type and source)	
<input type="checkbox"/>	e. Cell, tissue or organ cultures containing HIV; culture medium or other solutions containing HIV or HBV; blood, organs or other tissues from experimental animals infected with HIV or HBV. (list cell name and/or tissue type, and source)	
2. Job Classifications with Occupational Exposure: Please list names, kerberos, and job classification for those who work with human materials.		

Name	Kerberos ID	Job Classification (e.g. Post Doc, Grad Student, UROP)
Borenshtein, Diana	diana_b	Grad Student
Guillen, Nancy	nancyg	Grad Student
McBee, Megan	memcbee	Grad Student
Nagamine, Claude	cnagamin	Post Doc
Schlieper, Katherine	kschliep	Research Technologist
Zheng, Patricia	pzheng	UROP
Sheh, Alex	alexsheh	Grad Student
Wu, Rongcong	wurc05	Grad Student
Qusous, Tala	t_qusous	UROP

3. Procedures and Tasks Involving Human Blood or Other Infectious Material

<input type="checkbox"/>	a. Injections into humans or animals using human specimens including cell lines.
<input checked="" type="checkbox"/>	b. Other use of needles with human specimens including cell lines.
<input type="checkbox"/>	c. Preparing, dissecting, cutting, or otherwise handling human blood, tissue, or cell lines.
<input checked="" type="checkbox"/>	d. Pipetting, mixing, centrifuging, or vortexing human blood, fluid, tissue, or cell lines.
<input checked="" type="checkbox"/>	e. Handling tubes or other containers of human blood fluid, tissue or cell lines.
<input checked="" type="checkbox"/>	f. Cleaning up spills of human blood, other body fluids or cell lines.
<input checked="" type="checkbox"/>	g. Preparing or handling primary and established human cell cultures.
<input type="checkbox"/>	h. Basic first aid with human blood or fluid exposure.
<input type="checkbox"/>	i. Performing cardiopulmonary resuscitation (CPR).
<input type="checkbox"/>	Other: (please specify)

Section IV. Sharps Management

1. List Special Sharps Procedures Currently Being Used

(If needles are not handled as part of the research or work covered by the supplement, please put N/A below and proceed to Section V. For those who handle needles: **recapping needles by hand is prohibited.**)

Procedure	Mechanical Devices Used	Recap	If recap, what method is used?
Lysis of cells to release intracellular <i>Campylobacter</i> or <i>Helicobacter</i> bacteria	18-21G1 ½" needle	<input type="checkbox"/>	

2. The PI and/or Supervisor must solicit input from the laboratory/work area personnel who are potentially exposed to injuries from contaminated sharps in identification, evaluation, and selection of effective engineering and work practice controls and must document that solicitation in the Exposure Control Plan. Please document consideration and implementation of appropriate commercially available effective safer medical devices designed to eliminate or minimize occupational exposure.

BD SafetyGLide Hypodermic General Purpose Needles will be purchased from VWR (catalog # BD305915) to be used in lysis of cell lines when 1% Triton X-100 can not be used (i.e. with detergent-sensitive *Campylobacter* and *Helicobacter* species).

Section V. Equipment Decontamination

1. List Instructions and Schedule for Decontaminating and Maintaining Equipment

Facility area, surface or equipment to clean and/or decontaminate (Example: biosafety cabinet)	Decontamination Instructions (Example: wipe with 70% ethanol before and after working in cabinet daily basis)	Frequency (daily, weekly, etc.)	Cleaning Agents and/or Disinfectants Used (Example: 70% ethanol)	
Biosafety cabinets	Wipe with 70% ethanol before and after working in cabinet on a daily basis	Daily	70% ethanol	
Benches and other surfaces	Wipe with 10% bleach at end of day or following a spill	Daily	10% bleach	
2. Specify any special waste handling procedures, if applicable.				
3. Do you have a piece of equipment that you cannot disinfect or clean? NO Please identify that equipment below and provide the reason(s) why it cannot be cleaned or disinfected.				
Section VI. Engineering Controls				
1. List what Engineering Controls are Utilized (for example: biosafety cabinet, sharps containers, etc.)				
Engineering Control (Example: sharps container)	Location	Schedule of Maintenance (Examining and maintaining on a daily, weekly, etc. basis)	Person Responsible for reviewing effectiveness of these controls (example: supervisor)	
Sharps containers	Benches in 56-773, 56-786; adjacent to BSCs	Examined and maintained on a daily basis as used	Researchers and Kimberly Knox	
Biosafety cabinets	56-773	Examined and maintained on a daily basis as used Annual recertification by outside contractor	Researchers Kimberly Knox oversees	
Vacuum line traps	56-773 & 56-786	Examined and maintained on a daily basis as used	Researchers	
chemical fume hoods	56-786	Examined and maintained on a daily basis as used Annual recertification by MIT	Researchers Industrial Hygiene Program	
Section VII. Personal Protective Equipment (PPE)				
1. List how PPEs are used, decontaminated and disposed.				
Personal Protective Equipment	Tasks Requiring Use	Person Responsible for Providing PPE	Disposal Instructions	Decontamination Instructions
Disposable Gloves	Handling potentially infectious material	Located on shelves in 56-786. Restocked by Kimberly Knox.	Discard into biohazard waste if contaminated.	Do not decontaminate for reuse.
Utility Gloves	Housekeeping chores, spill cleanup	N/A		May use 10% bleach but discard gloves if damaged in any way

Laboratory Coats	Handling potentially infectious material	Outside vendor coordinated by Kimberly Knox		Place in laundry bag for pickup
Safety Glasses	Handling potentially infectious material outside a biosafety cabinet when there is a risk of splashing or spraying.	Contact Kimberly Knox for advice on obtaining	Discard into biohazard waste if contaminated	
Section VIII. Spill Decontamination				
1. List procedures if and where to find spill clean-up materials (i.e. tongs, dustpan and broom, forceps, spill kits, etc.) for picking up broken contaminated glassware. See Flip Chart for spill clean-up procedures.				
Broken glassware will be cleaned up using tongs/forceps found throughout the lab, or using a dustpan located beneath the sinks in 56-786 (closest to the door) and 56-773. Spill kits are located above the same sink.				